

# ***Proposed General Permit for Small MS4s***



U.S. EPA – Region 6  
Public Meetings September 2003

# Purpose of This Public Meeting

- **Overview of the proposed general permit for small Municipal Separate Storm Sewer Systems (MS4s)**
- **Overview of EPA's designation review of small MS4s outside Urbanized Areas**
- **Help you understand how you can provide comments**
- **Answer your questions**

# What Will We Cover?

- ✓ Why are we concerned about storm water?
- ✓ Who must apply for the permit?
- ✓ When do you apply?
- ✓ How do you apply?
- ✓ What does the permit require?
- ✓ Which small MS4s could be designated for permitting?

# How Do I Get a Copy of the Proposed General Permit?

- Proposed General Permit and Fact Sheet are available from EPA at:

[www.epa.gov/region6/sws](http://www.epa.gov/region6/sws) or

Diane Smith [smith.diane@epa.gov](mailto:smith.diane@epa.gov) 214-665-2145

Terry Branch [branch.terry@epa.gov](mailto:branch.terry@epa.gov)

214-665-6667

- Docket is at EPA Region 6 in Dallas, TX and available for review during normal working hours (contact Terry or Diane)

# How do I submit comments?

- Send by **October 24, 2003**
- Reference **Docket No. 6WQ-03-SW01** for proposed permit and "MS4 Designation Review" for the small MS4 designation review.
  - E-mail: [smith.diane@epa.gov](mailto:smith.diane@epa.gov)
  - Regular Mail or Hand Delivery/Courier/Overnight:  
Diane Smith, EPA Region 6, Water Quality Protection Division (6WQ-CA), 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733

# **Why Are We Concerned About Storm Water?**

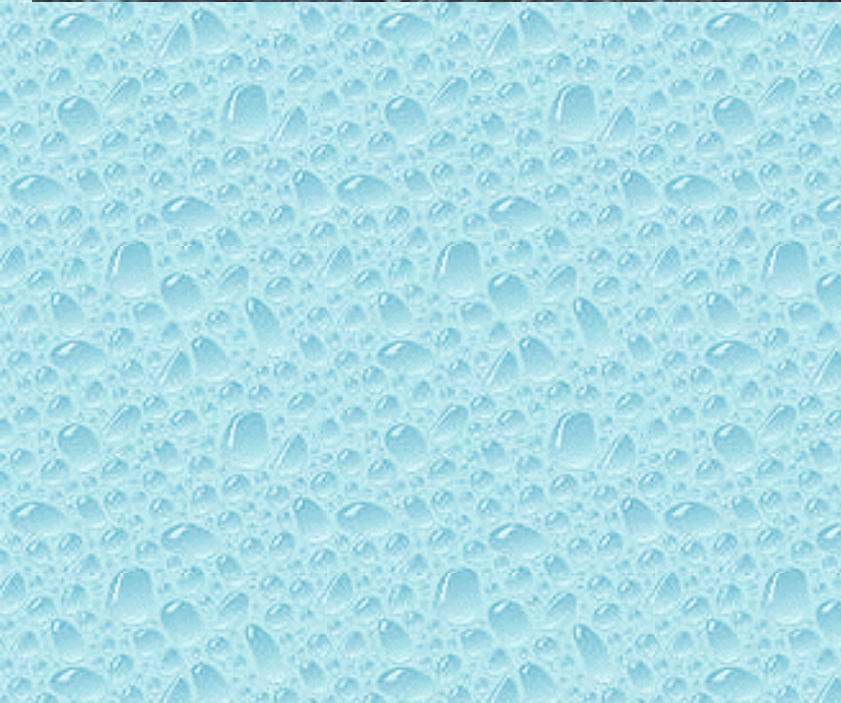
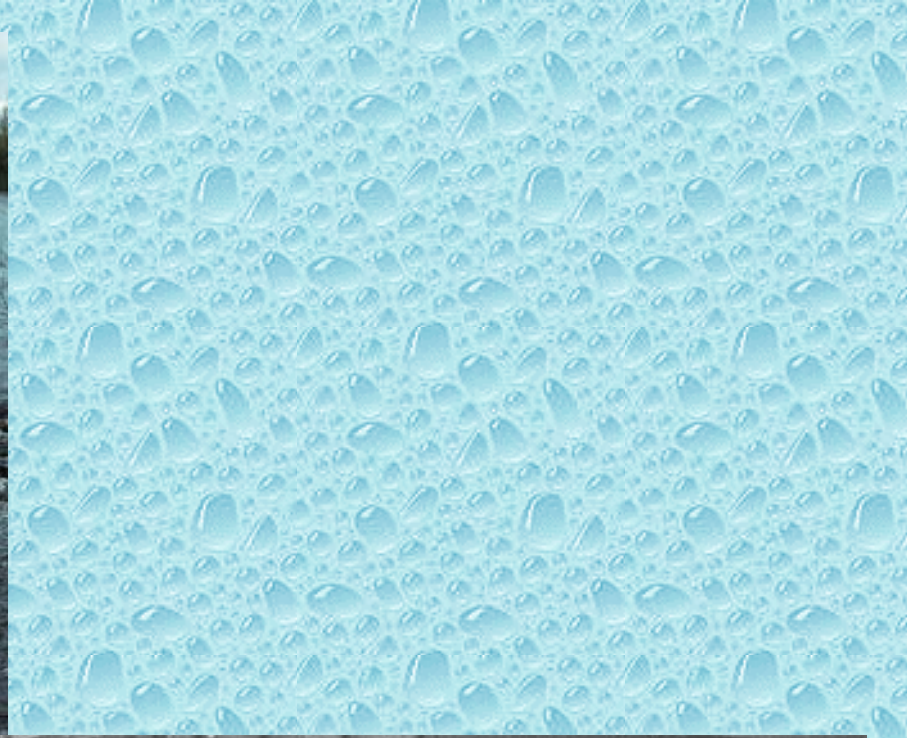
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The NPDES Storm Water Program









# What Do States Identify as the Leading Causes and Sources Affecting Impaired Waters?

- **Leading Causes:** Siltation, nutrients, bacteria, metals (primarily mercury), and oxygen depleting substances
- **Leading Sources:** Pollution from urban and agricultural land that is transported by precipitation and runoff

# Sources of Impairment

- According to 2000 305b report, of the 32% of the nation's waters that were assessed, **40% were impaired and urban runoff was a major cause of impairment for:**

➤ **Rivers & Streams: 11%**

➤ **Lakes & Ponds: 18%**

➤ **Estuarine: 32%**

➤ **Shoreline: >50%**

# Storm Water Pollutants

- Sediment
- Nutrients
- Bacteria
- Oxygen Demand
- Oil and Grease
- Trace Metals
- Toxic Chemicals
- Chlorides
- Thermal Impacts

# Potential Impacts from Storm Water

- Destruction/Degradation of aquatic habitat
- Accelerated loss of storage in lakes/reservoirs
- Diminished water recreation experiences
- Reduced aesthetic and preservation values
- Increased hydroelectric facility impairment
- Accelerated stream bank erosion
- Increased flood damages
- Reduced infiltration/groundwater recharge

# Expected Benefits of Controls

- Enhanced commercial, recreational and subsistence fishing
- Enhanced opportunities for swimming, boating and noncontact recreation
- Reduced flood damage
- Drinking water benefits
- Navigational benefits
- Reduced illness from consuming contaminated seafood and swimming in contaminated water
- Enhanced aesthetic value



**WHEN YOUR CAR'S LEAKING OIL ON THE STREET, REMEMBER IT'S NOT JUST LEAKING OIL ON THE STREET.**



**WHEN YOU'RE WASHING YOUR CAR IN THE DRIVEWAY, REMEMBER YOU'RE NOT JUST WASHING YOUR CAR IN THE DRIVEWAY.**



**WHEN YOUR PET GOES ON THE LAWN, REMEMBER IT DOESN'T JUST GO ON THE LAWN.**



**WHEN YOU'RE FERTILIZING THE LAWN, REMEMBER YOU'RE NOT JUST FERTILIZING THE LAWN.**

# **Which MS4s Need Permits?**

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Large, Medium...and Now Small MS4s

# Terms to Know

- **NPDES** - National Pollutant Discharge Elimination System
- **MS4** – Municipal Separate Storm Sewer System
- **UA** – Urbanized Area
- **SWMP** – Storm Water Management Program
- **BMP** – Best Management Practice
- **NOI** – Notice of Intent
- **NOT** – Notice of Termination
- **ESA** – Endangered Species Act
- **NHPA** – National Historic Preservation Act
- **SHPO/THPO** – State or Tribal Historic Preservation Officer

# What is an MS4?

A ***municipal separate storm sewer system*** (MS4) is a conveyance or system of conveyances owned by the United States, a State, city, town, Tribe, special district, or other public entity that discharges to waters of the U.S. and is:

- designed or used for collecting or conveying storm water
- not a combined sewer
- not part of a Publicly Owned Treatment Works (POTW)
- not a very discrete area such as a building

# What is an “Urbanized Area?”

A central place (or places) and the adjacent densely settled surrounding area that together have a minimum population of 50,000 and an average density of 1,000/sq.mi. in core area plus band with 500/sq. mi.

(Bureau of the Census geographers liken it to flying over an urban area and drawing a line around the built-up, developed area as seen from the air)

# ***Storm Water Phase II Program***

## **Regulated Small MS4 Definition**

*Automatic Nationwide Designation:*

All Small MS4s Located Within  
“Urbanized Areas” (UAs)

# Urbanized Areas In Permit Area

## New Mexico

- Albuquerque
- El Paso
- Farmington
- Las Cruces
- Santa Fe

## Oklahoma

- Fort Smith
- Lawton
- Norman
- Oklahoma City
- Tulsa

# Determining Location in a UA

- Operators of small MS4s need to determine if they are located within the boundaries of a Bureau of the Census-defined “urbanized area” based on the latest decennial Census
- Information regarding UA boundaries on EPA’s web site

# Small MS4 Waiver Option 1

Available for small MS4s in UAs where...

- ✓ The small MS4 serves a population  $<1,000$
- ✓ The small MS4 is not contributing pollutants to a physically interconnected regulated MS4
- ✓ If the small MS4 is discharging to an impaired water body, there has been a determination that storm water controls are not needed based on a TMDL that addresses the pollutants of concern

# Small MS4 Waiver Option 2

Available for small MS4s in UAs where...

- The small MS4 serves a population <10,000
- The PA has evaluated all waters that receive a discharge from the small MS4
- The PA has determined that storm water controls are not needed based on a TMDL or equivalent analysis that addresses the pollutants of concern
- The PA has determined that future discharges will not impact water quality.

# Designation by the Permitting Authority

The PA must develop and apply designation criteria to all small MS4s located outside of a UA that serve a jurisdiction with a population of at least 10,000 and a population density of at least 1,000 people/sq. mi.

# Designation Reviews

## *Addendum D*

- Discharge to sensitive waters?
- Significant contributor of pollutants to waters of the U.S.?
- High population density?
- High growth (over last 10 years) or high growth potential?
- Contiguous to an urbanized area?
- Physically interconnected with regulated MS4?
- Effective protection of water quality by other programs?

# Preliminary Designation Decisions

## *Addendum E*

- Reviewed 11 small MS4s in New Mexico
  - Clovis – impaired water quality in local lakes
  - Las Vegas – Gallinas River impaired, high population density (>1900/sq. mi.), presence of endangered species
  - Roswell – pop. >45,000, presence of endangered species, Bitter Lake NWR
- Request input on review

# **How Would You Apply for the Small MS4 GP?**

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# Step 1: Read the General Permit and Fact Sheet

- These are available from EPA at:  
[www.epa.gov/region6/sws](http://www.epa.gov/region6/sws) or  
Call Terry Branch at 214-665-6667
- You are responsible for knowing what's required in the permit before submitting the NOI.
- Keep a copy of the permit with your paperwork.

## Step 2: Make sure you are eligible to apply for the permit.

- Is your MS4 in an area covered by one of the 3 general permits?
- Is your MS4 discharging to an impaired water? Is there an applicable TMDL?
- NM: Rich Powell NMED 505-827-2798  
[www.nmenv.state.nm.us/swqab/Monitoring+Assessment/index.html](http://www.nmenv.state.nm.us/swqab/Monitoring+Assessment/index.html)
- OK: Steve Webb ODEQ 405-702-8195
- EPA: [www.epa.gov/owow/tmdl/](http://www.epa.gov/owow/tmdl/)

## Step 2: Make sure you are eligible to apply for the permit (cont).

- Will your project impact an endangered species or critical habitat?
  - ESA review procedures described in Appendix A
- Will your project adversely affect historic properties?
  - NHPA review procedures described in Appendix B

# Step 3: Develop and Implement a Storm Water Management Program

- Include:
  - ✓ Six minimum measures
  - ✓ Measurable goals
  - ✓ Schedules with credible interim progress towards full programs within 5 years

# Step 3: Develop and Implement a Storm Water Management Program

- ✓ Check Part 8 for additional State or Tribal requirements
- ✓ System Map showing outfalls, waterbodies, and BMPs

# Step 3: Develop and Implement a Storm Water Management Program

## Implement the Program

- ✓ Implement the controls
- ✓ Inspect and maintain the controls
- ✓ Update/change program as necessary
- ✓ Prepare Annual Reports

## Step 4: Complete and submit a Notice of Intent (NOI).

- ✓ The NOI is not an 'application.' You will not receive the permit from EPA later in the mail.
- ✓ By signing and submitting the NOI, you are agreeing to comply with all requirements in the general permit.

# How to Complete the NOI

- No form – Appendix C has suggested format
- Asks for basic information: Name, Location, Receiving Waters, Contact, Area
- Are SWMP responsibilities shared with someone?

# How to Complete the NOI

- Information on SWMP
  - BMPs for 6 Minimum Measures
  - Measurable Goals
  - Schedules for program development & implementation
- Certification (Signature required)

# When do you need to send in the NOI?

- Automatically designated MS4s: **90 days from effective date of permit**
- MS4s outside UAs: **180 days from designation** (Director can give more time)

**What Would the Small  
MS4 GP Require?**

# Non-Storm Water

- Most non-storm water NOT eligible, but some flexibility on “allowable” non-storm water

# Permit Requirements

Required to develop, implement and enforce a storm water management program to:

- Reduce the discharge of pollutants to the maximum extent practicable (MEP)
- Protect water quality
- Satisfy the appropriate water quality requirements of the Clean Water Act

# Permit Requirements

The storm water management program must include:

- Six minimum control measures
- Controls to meet MEP
- Evaluation/assessment efforts
- Record keeping

# Water Quality

- SWMP must be designed to reduce pollutants to the Maximum Extent Practicable (MEP) and protect water quality
- After coverage, EPA can notify permittee that discharges cause/contribute to WQ problems that must be addressed or risk losing permit coverage

# Permit Requirements

## **Minimum Control Measures:**

1. Public Education and Outreach
2. Public Involvement/Participation
3. Illicit Discharge Detection and Elimination
4. Construction Site Storm Water Runoff Control
5. Post-Construction Storm Water Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

# Permit Requirements

- For each each minimum control measure:
  - Best management practices
  - Measurable goals
  - Timing and frequency of the actions
  - Responsible persons
- EPA measurable goal and BMPs as guidance on web: visit MS4 page at [www.epa.gov/region6/sws](http://www.epa.gov/region6/sws)

# Permit Requirements

Must evaluate program and submit reports:

- Annual reports in the first permit term, in years 2 and 4 in subsequent terms (Format in Appendix D)
- No monitoring is generally required
- Also need to keep relevant records for at least 3 years

# Permit Requirements

Annual Reports must include:

- Status of compliance with permit conditions:
  - Assessment of BMPS and measurable goals
- Results of any info collected and analyzed
- A summary of the storm water activities planned for the next reporting cycle
- A change in any BMPs or measurable goals
- Notice that relying on another entity, if applicable

# TMDLs

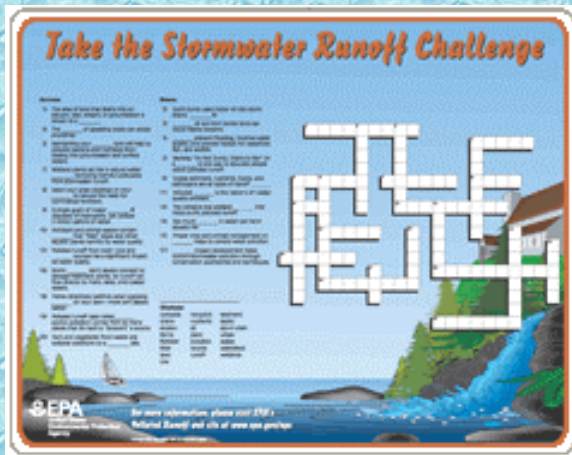
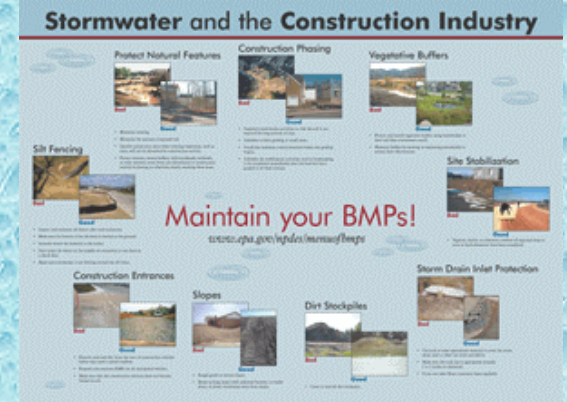
- Total Maximum Daily Load is required for all impaired waters
- Storm water point sources must be included and assigned a portion of the available load
- SWMP must be consistent with any applicable TMDL

# Program Implementation Options

- Become a co-permittee with another regulated small, medium, or large MS4
- Seek own permit but rely on another entity for one or more of the minimum control measures
  - Must be as stringent
  - Make a note in NOI and reports
  - Must have permission
  - Permittee remains liable

# Six Minimum Measures

# Public Education and Outreach



# Minimum Control Measures

## *Public Education and Outreach*

### MUST:

- Distribute educational materials to the community, or
- Conduct equivalent outreach activities about the impacts of storm water discharges on water bodies and the steps that the public can take to reduce pollutants in storm water runoff

# Minimum Control Measures

## *Public Education and Outreach*

### Recommend:

- May use materials provided by others
- Inform public on how to get involved in storm water program activities
- Tailor program to target specific groups of entities, particularly those likely to have significant storm water impacts
- Address the viewpoints and concerns of minority and disadvantaged communities

# ***Public Involvement/Participation***



# Minimum Control Measures

## *Public Involvement/Participation*

### MUST:

- Comply with State, Tribal and local public notice requirements

### Recommend:

- Provide opportunities for the public to participate, such as:
  - Local storm water management panel
  - Volunteer monitoring

# ***Illicit Discharge Detection and Elimination***



# Minimum Control Measures

## *Illicit Discharge Detection and Elimination*

What are some sources of illicit discharges?

- Sanitary or process wastewater
- Effluent from septic tanks
- Improper auto and household toxics disposal
- Illegal dumping

Do all illicit discharges need to be addressed?

# Minimum Control Measures

## *Illicit Discharge Detection and Elimination*

### MUST:

- Develop a sewer system map of all outfalls and the names of all receiving waters
- Prohibit non-storm water discharges, through an ordinance or other means and implement enforcement procedures
- Implement a plan to detect and address non-storm water discharges
- Inform public employees/general public of hazards associated with illegal discharges

# Minimum Control Measures

## *Illicit Discharge Detection and Elimination*

### Recommend:

- A plan with procedures for:
  - Locating priority problem areas
  - Tracing the source of an illicit discharge
  - Removing the source
  - Program evaluation & assessment
- Promotion of public reporting of discharges
- Distribution of outreach materials
- Storm drain stenciling

# ***Construction Site Storm Water Runoff Control***



# Minimum Control Measures

## *Construction Site Storm Water Runoff Control*

### MUST:

- Develop a program to reduce pollutants from construction activities that disturb  $\geq 1$  acre
- Use an ordinance, or other regulatory means, with penalties, that requires appropriate E&S controls and controls on waste at the site
- Have procedures for:
  - site plan review
  - site inspection & enforcement
  - public input

# Minimum Control Measures

## *Construction Site Storm Water Runoff Control*

### Recommend:

- Procedures for site plan review should include review of individual pre-construction site plans
- Procedures for site inspections and enforcement could include steps to identify priority sites based on the nature of the site, topography, soil characteristics, and receiving water quality.
- Provide appropriate educational and training measures for construction site operators

# ***Post-construction Storm Water Management***



# Minimum Control Measures

## *Post-construction Storm Water Management in New Development and Redevelopment*

### MUST:

- Develop a program, using an ordinance or other regulatory means, to address runoff from new development and redevelopment projects that disturb  $\geq 1$  acre
- Implement strategies with a combination of structural and/or non-structural BMPs
- Ensure adequate long-term operation & maintenance (O&M) of BMPs

# Minimum Control Measures

## *Post-construction Storm Water Management in New Development and Redevelopment*

### Recommend:

- The BMPs chosen should:
  - be appropriate for the local community
  - minimize water quality impacts
  - attempt to maintain pre-development runoff conditions
- Participate in watershed planning efforts
- Assess existing ordinances, policies, and programs that address storm water runoff quality
- Provide opportunities for public participation

# ***Pollution Prevention/Good Housekeeping for Municipal Operations***



# Minimum Control Measures

## *Pollution Prevention/Good Housekeeping for Municipal Operations*

### MUST:

- Develop an O&M program to prevent or reduce pollutant runoff from operations
- Include employee training to prevent and reduce storm water pollution from activities such as the maintenance of park and open space, buildings, and storm water systems.

# Minimum Control Measures

## *Pollution Prevention/Good Housekeeping for Municipal Operations*

### Recommend:

- Maintenance activities and schedules, and long-term inspection procedures
- Controls on the discharge of pollutants from streets, salt/sand storage areas, waste transfer stations, etc.
- Procedures for disposing of waste from the MS4
- Ways to ensure new flood management projects assess impacts on water quality

**Cost?**

# Phase II Cost Estimates

Paraphrased from NPDES Phase II Program Cost Estimates by Andy Reese, Ogden Environmental and Energy Services, Inc. (given at the Tools for Urban Water Resource Management Conference in Chicago, February 2000)

# Basis for Estimates

- City with 50,000
- Moderate Development Pressure
- Absolute bare minimum vs. really trying to address current and head off future problems
- Heavy reliance on other programs vs. stand alone program

# Cost Comparison (per capita)

<u>Program</u>	<u>Initial Year</u>	<u>Annual</u>
Very Basic	\$0.75	\$1.63
Expanded	\$6.16	\$7.64
EPA Estimate	\$1.39 to \$7.83	\$1.23 to \$5.73

# Andy's Cost Range Est. for 50,000 pop. MS4 Program

- Year 1: \$37,600 to \$308,150
- Year 2-5: \$81,700 - \$381,850
- Note: Andy warns Minimum Program may not pass muster with EPA/State

# Reducing “New” Costs

- Build on existing programs
- Don’t reinvent the wheel
- Regional cooperation
- What can you do in-house?

# *Storm Water Program*

## Internet Resources

- Region 6:  
[www.epa.gov/region6/sws](http://www.epa.gov/region6/sws)  
(permits)

[www.epa.gov/region6/sw](http://www.epa.gov/region6/sw)  
(enforcement)